

LPDES PERMIT NO. LA0122009, AI NO. 132754

STATEMENT OF BASIS

for draft Louisiana Pollutant Discharge Elimination System permit No. LA0122009 to discharge to waters of the State of Louisiana.

THE APPLICANT IS: Nesbit Industries, Inc dba Bellevue Meat Processing Plant
P.O. Box 1231
Haughton, LA 71037

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 82135
Baton Rouge, Louisiana 70884-82135

PREPARED BY: Molly Hebert

DATE PREPARED: February 2, 2006

1. PERMIT STATUS

A. Reason For Permit Action:

First time issuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term.

B. NPDES permit – N/A

C. LWDPs permit – N/A

D. Date Application Received: November 11, 2005

2. FACILITY INFORMATION

A. FACILITY TYPE/ACTIVITY - custom slaughterhouse

The Bellevue Meat Processing Plant is an existing facility located at 176 Bodcau Dam Road, northwest of Bellevue, in Bossier Parish. The slaughterhouse processes approximately 50,000 lbs Equivalent Live Weight Killed (ELWK) per year of domestic and game animals. Some live animals are received. Animal carcasses are gutted, skinned, and washed, then custom cut and packaged. All offals (solid by-products) are removed by Riegel By-products (renderer) for the production of oils, leather, and animal food.

The facility discharges process water (including floor washdown) and sanitary water to a septic tank, then to a package treatment plant. Originally, this discharge was permitted under LAG530092. The responsible party, the Bossier Parish School Board, previously operated the BPCC Criminal Justice Institute at this site. The Institute was closed and the School Board now leases the property to Nesbit Industries, Inc. Nesbit Industries is currently discharging wastewater from the Bellevue Meat Processing Plant under the LAG530092 permit. A compliance order (WE-C-02-1002) was issued to the Bossier Parish School Board on September 29, 2005 regarding this matter. Following issuance of this permit, LAG530092 shall be terminated.

B. FEE RATE

1. Fee Rating Facility Type: minor
2. Complexity Type: II, BPJ points to 0, based on operation size.
3. Wastewater Type: II
4. SIC code: 0751 – custom slaughter

C. LOCATION - 176 Bodcau Dam Road, Bellevue, Bossier Parish
Latitude 32° 40' 22" North, Longitude 93° 31' 18" West

3. OUTFALL INFORMATION

Outfall 001

Discharge Type: meat processing wastewater, washdown wastewater (carcasses and equipment), and sanitary wastewater
Treatment: septic tank to a mechanical treatment system with chlorination
Location: at the point of discharge from mechanical treatment system prior to combining with any other waters
Flow: 0.0004 MGD
Discharge Route: to Bayou Bodcau via local drainage

4. RECEIVING WATERS

STREAM – Bayou Bodcau

BASIN AND SEGMENT – Red River Basin, Segment 100401

DESIGNATED USES -
a. primary contact recreation
b. secondary contact recreation
c. propagation of fish and wildlife
f. agriculture

5. PROPOSED EFFLUENT LIMITS

BASIS - See Rationale below (p 5).

6. COMPLIANCE HISTORY/COMMENTS

A. Compliance History

1. OEC/Enforcement Division –

September 29, 2005 – A Compliance Order (WE-C-02-1002) was sent to the Bossier Parish School Board (AI 19927) regarding the sewage treatment plant authorized to discharge under LAG530092. An inspection conducted on August 6, 2002 found that the STP was receiving an unauthorized waste stream from Bellevue Meat Processing Plant. The

facility was ordered to comply with permit LAG530092 and to submit a
application to treat the wastewater from Bellevue Meat Processing.

2. OEC/Surveillance Division –

There are no recent inspections on file. The last inspection was the August
6, 2002 inspection mentioned above.

B. DMR Review/Excursions

DMRs have not been submitted under this Agency Interest (AI). However, the company
has been operating under LAG530092, issued to the Bossier Parish School Board (AI
19927) and sampling/submitting DMRs. A review of the DMRs submitted under AI
19927 for the past two years showed the following:

No DMRs were submitted for the 2nd half of 2005. The following excursions were noted
in DMRs submitted from 7/03 – 6/05.

Date	Outfall	Parameter	Reported Value	Permit Limit\
6/05	001	TSS	160.2 mg/l	135 mg/l
12/03	001	Fecal	7600 colonies	400 colonies

7. TMDL Status

Subsegment 100401, Bayou Bodcau-From the Arkansas State Line to Red Chute, is not
listed on LDEQ's Final 2004 303(d) List as impaired, and to date, no TMDL's have been
established. A reopener clause will be established in the permit to allow for the requirement
of more stringent effluent limitations and requirements as imposed by any future TMDLs.

8. ENDANGERED SPECIES

The receiving waterbody, Subsegment 100401 of the Red River Basin is not listed in
Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and
Wildlife Service (FWS). This strategy was submitted with a letter dated October 21, 2005
from Watson (FWS) to Gautreaux (LDEQ). Therefore, in accordance with the
Memorandum of Understanding between the LDEQ and the FWS, no further informal
(Section 7, Endangered Species Act) consultation is required. It was determined that the
issuance of the LPDES permit is not likely to have an adverse effect on any endangered or
candidate species or the critical habitat. The effluent limitations established in the permit
ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

9. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on
undisturbed soils. Therefore, there should be no potential effect to sites or properties on or
eligible for listing on the National Register of Historic Places, and in accordance with the
"Memorandum of Understanding for the Protection of Historic Properties in Louisiana

Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

10. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application.

11. STORMWATER POLLUTION PREVENTION PLAN REQUIREMENTS

This facility SIC code, 0751, is not listed in the definition of stormwater associated with industrial activity as per LAC 33:IX.2511.B.14. In addition, the facility has submitted a No Exposure Certification Statement (November 2, 2005). Therefore, a SWPPP requirement is not included in this permit.

12. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

A Local Newspaper of General Circulation
Office of Environmental Services Public Notice Mailing List

Rationale for Bellevue Meat Processing Plant

Outfall 001 - meat processing wastewater, washdown wastewater (carcass, equipment, and floor), and sanitary wastewater (estimated flow is 0.0004 MGD)

Pollutants	Limitations		Reference		
	Monthly Average (lbs/day)	Daily Maximum (lbs/day)	Monthly Average (mg/l)	Daily Maximum (mg/l)	
Flow	--	--	Report (MGD)	Report (MGD)	LAC33.IX.2361.1.1.b
CBOD ₅ (*3)	0.04	0.08	--	--	(*1), (*2) BPJ
TSS	0.06	0.12	--	--	(*1), (*2), BPJ
Oil and Grease	0.024	0.036	--	--	(*1), (*2), BPJ
Fecal Coliform	--	--	--	400 colonies/ 100 ml	(*1), (*2)
pH	--	--	6.0 s.u. (minimum)	9.0 s.u. (maximum)	40 CFR 432.3, (*2)
NH ₃ -N	0.042	0.094	--	--	(*1), (*4)
Soaps and/or Detergents	--	--	Report	NA	(*2), BPJ

- (*1) 40 CFR 432.15
- (*2) LAG480000
- (*3) Carbonaceous BOD₅
- (*4) LAG560000

Treatment: septic tank to a mechanical treatment system with chlorination

Monitoring Frequency:

1/3 month for all parameters.

BPJ based on facility size and satisfactory sampling record. This facility discharges approximately 400 GPD total (50 GPD meat processing, 50 GPD sanitary, and 300 GPD washdown). While this is a first-time issuance, the facility has been sampling and reporting under the permit issued to Bossier Parish School Board. The sampling results have been satisfactory.

Limits Justification:

Process Wastewater

This facility processes carcasses 2-3 days per week from Jan-Sep and 7 days per week Oct-Dec. Daily LWK has been calculated as follows:

$$\text{Operating Days/ Year} = ((9 \text{ mon} * 12 \text{ day/month}) + (3 \text{ mon} * 30 \text{ day/month})) = 198 \text{ days/year}$$

$$\text{LWK} = (50,000 \text{ lbs/year}) / (198 \text{ days/year}) = 253 \text{ lbs/day}$$

Calculated Mass Loading Limits for Process Water

The following mass limits are calculated from the Effluent Limitation Guidelines (ELGs) for the Meat and Poultry Products Point Source (MPPPS) Category, per 40 CFR 432, Subpart A NSPS.

Monthly Average Limits

$$\text{CBOD}_5 = (253 \text{ lbs/day}) \times (0.12 \text{ lbs/1000 lbs LWK}^1) = 0.03 \text{ lbs/day}$$

$$\text{TSS} = (253 \text{ lbs/day}) \times (0.20 \text{ lbs/1000 lbs LWK}) = 0.05 \text{ lbs/day}$$

$$\text{Oil and Grease} = (253 \text{ lbs/day}) \times (0.06 \text{ lbs/1000 lbs LWK}) = 0.02 \text{ lbs/day}$$

$$\text{Ammonia (as N)} = (253 \text{ lbs/day}) \times (0.17 \text{ lbs/1000 lbs LWK}) = 0.04 \text{ lbs/day}$$

Daily Maximum Limits

$$\text{CBOD}_5 = (253 \text{ lbs/day}) \times (0.24 \text{ lbs/1000 lbs LWK}) = 0.06 \text{ lbs/day}$$

$$\text{TSS} = (253 \text{ lbs/day}) \times (0.40 \text{ lbs/1000 lbs LWK}) = 0.10 \text{ lbs/day}$$

$$\text{Oil and Grease} = (253 \text{ lbs/day}) \times (0.12 \text{ lbs/1000 lbs LWK}) = 0.03 \text{ lbs/day}$$

$$\text{Ammonia (as N)} = (253 \text{ lbs/day}) \times (0.34 \text{ lbs/1000 lbs LWK}) = 0.09 \text{ lbs/day}$$

¹ LWK = live weight killed, total weight of animals slaughtered (40 CFR 432.2.f). While this facility receives primarily killed game (live animals are received on occasion), the animals have not been bled, gutted, or skinned. As such, this facility has been classified as a First Processor rather than a Further Processor. The term LWK has been applied to the total weight of animals received by the facility prior to any processing (BPJ). For calculation purposes, the daily LWK is estimated at 253 lbs/day as shown above.

Sanitary Wastewater Limits per LAG480000 for Light Commercial Facilities

Sanitary limits from General Permit LAG480000 and LAG56000 have been applied to this discharge through BPJ. The limits have been converted from mg/l to lb/day as shown below.

CBOD₅

$$\text{Monthly Average} = (30 \text{ mg/l})(0.00005 \text{ MGD})(8.34) = 0.01 \text{ lb/day}$$

$$\text{Daily Maximum} = (45 \text{ mg/l})(0.00005 \text{ MGD})(8.34) = 0.02 \text{ lb/day}$$

TSS

$$\text{Monthly Average} = (30 \text{ mg/l})(0.00005 \text{ MGD})(8.34) = 0.01 \text{ lb/day}$$

$$\text{Daily Maximum} = (45 \text{ mg/l})(0.00005 \text{ MGD})(8.34) = 0.02 \text{ lb/day}$$

Oil & Grease

$$\text{Monthly Average} = (15 \text{ mg/l} / 1.5)^{**}(0.00005 \text{ MGD})(8.34) = 0.004 \text{ lb/day}$$

$$\text{Daily Maximum} = (15 \text{ mg/l})(0.00005 \text{ MGD})(8.34) = 0.006 \text{ lb/day}$$

NH₃-N

$$\text{Monthly Average} = (5 \text{ mg/l})(0.00005 \text{ MGD})(8.34) = 0.002 \text{ lb/day}$$

$$\text{Daily Maximum} = (10 \text{ mg/l})(0.00005 \text{ MGD})(8.34) = 0.004 \text{ lb/day}$$

**** Monthly Average concentration limit for Oil & Grease is not included in LAG48000.**

A monthly average limit has been calculated as shown and has been applied through BPJ.

Summation of CBOD₅, TSS, and Oil & Grease Mass Limits for Outfall 001

Since this outfall discharges commingled sanitary and process wastewater, the loadings for each wastewater type have been summed. The sanitary wastewater and process wastewater are routed through the same treatment plant. Sampling prior to commingling of treated wastewaters is not possible.

CBOD₅

Monthly Average = $0.01 + 0.03 = 0.04$ lb/day

Daily Maximum = $0.02 + 0.06 = 0.08$ lb/day

TSS

Monthly Average = $0.01 + 0.05 = 0.06$ lb/day

Daily Maximum = $0.02 + 0.10 = 0.12$ lb/day

Oil & Grease

Monthly Average = $0.004 + 0.02 = 0.024$ lb/day

Daily Maximum = $0.006 + 0.03 = 0.036$ lb/day

NH₃-N

Monthly Average = $0.002 + 0.04 = 0.042$ lb/day

Daily Maximum = $0.004 + 0.09 = 0.094$ lb/day

Flow: Reporting of the volume of effluent discharged from each outfall is required by LAC33.IX.2361.i.1.b

CBOD₅, TSS, Oil & Grease: As shown above, these limits are a summation of ELG limits for Meat and Poultry Products Point Sources (40 CFR 432) and Sanitary Wastewater limits from LPDES Light Commercial General Permit (LAG480000). CBOD₅ is required due to suspected presence of Ammonia-Nitrogen.

NH₃-N: These limits are based on 40 CFR 432.15 and LAG560000.

Additional limitations pertaining to washwater (COD) were not deemed necessary because (1) EPA considered this wastewater type when developing the MPPPS guidelines and did not promulgate a COD limitation, (2) equipment cleaning and floor washdown are a fraction of the estimated 400 GPD water usage. However, Reporting Requirements for Soaps/Detergents usage have been included for future permitting considerations (BPJ).

BPJ Best Professional Judgment
su Standard Units